REMARKS

Upon entry of the instant amendment claims 14-26 will remain pending in the above-identified application and stand ready for further action on the merits.

Claims 14, 15, 20 and 23-26 are amended in the instant reply. Support for the amendments to the claims occurs in the original specification as filed and US Patent Publication 2006/0210459 A1 (*i.e., the publication of the instant application*).

For example, support for the instant amendment to claims 14 and 23 can be found at paragraphs [0037] and [0038] of US 2006/0210459 A1 (*which paragraphs are reproduced below for the USPTO's convenience*).

> [0037] A crystallizing method of the present embodiment is a crystallizing method in which crystals are precipitated by adding an acid to a solution of an organic acid salt. In the method, part of organic acid crystals being precipitated by reacting the organic acid salt with the acid is dissolved by adding a base. The organic acid salt thus dissolved is again reacted with the acid, in the presence of the remaining organic acid crystals.
>
> [0038] More specifically, the crystallizing method of the present invention is the method in which a) the organic acid salt is an ingredient compound for use in a crystallization; i.e., a starting substance (hereinafter referred to as ingredient organic acid salt where appropriate) for use in a crystallizing reaction, and b) the organic acid salt is reacted with the acid by adding the acid to a solution (preferably a water solution) of the ingredient organic acid salt, thereby to produce crystals of targeted organic acid. In this method, at least a part of the targeted organic acid is crystallized by reacting, with the acid, the ingredient organic acid salt used for the crystallization. Then, by using the base, a part of those organic acid crystals precipitated by the crystallization is converted into the organic acid salt, thereby being dissolved in the liquid. Then, in the presence of the remaining crystals, the organic acid salt in the system is reacted again with the acid by adding the acid to the organic acid salt dissolved liquid.

Accordingly, entry of the instant amendment and favorable action on the merits is earnestly solicited at present.

Claim Rejections – 35 USC § 103(a)

Claims 14-15, 20, 23-26 have been rejected under the provisions of 35 USC § 103(a) as being unpatentable over **JP '304** (JP 41-12304).

Claims 16-19 and 21-22 have been rejected under the provisions of 35 USC § 103(a) as being unpatentable over **JP '304** (JP 41-12304).

Legal Standard for Determining Prima Facie Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet,* 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.).

"In determining the propricty of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab,* 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee,* 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Supreme Court of the United States has recently held that the teaching, suggestion, motivation test is a valid test for obviousness, but one which cannot be too rigidly applied. See *KSR Int'l Co. v Teleflex Inc.*, 127 SCt 1727, 82 USPQ2d 1385 (U.S. 2007). The Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, *ibid.*, reaffirmed the Graham factors in the determination of obviousness under 35 U.S.C. § 103(a). The four factual inquiries under Graham are:

(a) determining the scope and contents of the prior art;

(b) ascertaining the differences between the prior art and the claims in issue;

(c) resolving the level of ordinary skill in the pertinent art; and

(d) evaluating evidence of secondary consideration.

Graham v. John Deere, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (U.S. 1966).

The Court in *KSR Int'l Co. v. Teleflex, Inc., supra.*, did not totally reject the use of "teaching, suggestion, or motivation" as a factor in the obviousness analysis. Rather, the Court recognized that a showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a).

Even so, the Court in *KSR Int'l Co. v. Teleflex, Inc., ibid.*, rejected a rigid application of the "teaching, suggestion, or motivation" (TSM) test, which required a showing of some teaching, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art to combine the prior art elements in the manner claimed in the application or patent before holding the claimed subject matter to be obvious.

Accordingly, while the courts have adopted a more flexible teaching, suggestion, motivation (TSM) test in connection with the obviousness standard based on the *KSR v. Teleflex* case, which case involved a mechanical device in a relatively predictable technological area, it remains true that, despite this altered standard, the courts recognize inventors face additional barriers in relatively unpredictable technological areas as noted in *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 83 USPQ2d 1169 (Fed. Cir. 2007).

Further, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336, quoted with approval in *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007).

Distinctions Over JP 41-12304

The method for crystallization of JP 41-12304 generates terephthalic acid particles by adding a mineral acid to an aqueous solution of an alkali salt of a terephthalic acid, and the addition of the mineral acid is divided into first and second steps placed at a time interval there between. Further, JP 41-12304 also teaches that the pH is not more than 3.0 in the second step. On the other hand, the "method for crystallizing an organic acid" according to the present invention is a method for crystallization including the steps of:

(i) precipitating at least a part of total of the organic acid crystals that are precipitable, by adding an acid to a solution of an organic acid salt;

(ii) converting a part of the organic acid crystals into an organic acid salt and dissolving the organic acid salt, by adding a base to a liquid containing the organic acid crystals; and

(iii) adding an acid to the organic acid salt dissolved liquid.

That is, the method for crystallization of JP 41-12304 teaches adding a mineral acid to an aqueous solution of an alkali salt of a terephthalic acid. However, it is only the mineral acid that is added until the pH is not less than 3.0 in the second step, thus completely failing to teach adding a base in the process of the addition.

On the other hand, in the present invention as the acid is being dropped into a solution of an organic acid salt, the solution transits from an unsaturated state **(I)** in which the targeted organic acid is not yet saturated, to a supersaturated state **(II)** in which the targeted organic acid is not crystallized out beyond the saturation solubility of the organic acid. Then, a rapid desupersaturation **(III)** occurs due to the crystallization, thereby resulting in a saturated state **(IV)**. Once the liquid arrives at the saturated state **(IV)**, then **(V)** the base is added at an arbitrary point, so that an amount of the acid excluding an amount being neutralized by the base returns to the point of **(II)**, thus dissolving minute crystals (*relatively small crystals amongst the crystals being precipitated*) precipitated during the **(III)** and the **(IV)**. Then, **(VI)** the acid is dropped again so as to cause crystal growth by using the organic acid dissolved in the liquid.

The method of JP 41-12304 does *not* add a base once the organic acid crystals have been precipitated. Therefore, a person skilled in the art cannot easily predict an effect of obtaining large particles by dissolving the minute crystals precipitated (*relatively small crystals amongst the crystals being precipitated*) and by causing the crystal growth by using the organic acid dissolved in the liquid.

Accordingly, it is submitted that the pending claims are in no way rendered obvious or otherwise unpatentable over the disclosure of the cited JP 41-12304 reference. In particular, no teaching, disclosure, reason or rationale is provided in the same reference or has otherwise been annunciated in the outstanding rejection, which would allow one of ordinary skill in the art to arrive at the instant invention as claimed. Any contentions of the USPTO to the

contrary must be reconsidered at present, inasmuch as the above outstanding rejections of the pending claims are no longer sustainable and must be withdrawn at present.

CONCLUSION

In view of the above amendment and instant remarks, it is submitted that each of instantly pending claims 14-26 in the application is in condition for allowance under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey, Reg. No. 32,881 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

Dated: July 14, 2008

Respectfully submitted,

By _____

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